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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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In re application of: CHEUNG et al.

Attorney Docket No.: IPVBP003

Application No.: 10/826,531

Examiner: BLAIR, KILE O.

Filed: April 15, 2004

Group: 2615

Title: DIRECTIONAL SPEAKER FOR  
PORTABLE ELECTRONIC DEVICE**CERTIFICATE OF FACSIMILE**

I hereby certify that this correspondence is being transmitted by facsimile to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on August 1, 2008.

Signed: Patricia Tate

Printed Name: Patricia Tate

**PRE-APPEAL BRIEF**

Mail Stop \_\_\_\_\_  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

In response to the final Office Action dated April 1, 2008, Applicants appeal the rejection and submit this Pre-Appeal Brief.

In the final Office Action, the Examiner rejected claims 1, 6-8, 13-19 and 21-25 under 35. U.S.C. §102; and rejected claims 2-5, 9-12 and 20 under 35 U.S.C. §103(a). These rejections are fully traversed below. Claims 1-25 remain pending. Reconsideration of the application is respectfully requested.

**REJECTION OF CLAIMS 1 AND 6-8 UNDER 35 USC 102(b)**

Claim 1 pertains to a personal wireless communication device that, among other things, includes a microphone for sound pickup and a directional speaker for sound output.

In contrast, Johnson et al. pertains to "[m]ethods for controlling a system in a vehicle in which radiation is directed from a transducer into the passenger compartment and is reflected off or modified by an object in the passenger compartment and received by the same or a different transducer." Such methods are for use in a vehicle and have no use for personal wireless communication devices. The Examiner references col. 29,

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line 19 because Johnson et al. therein makes mention of a "cellular phone". However, the cellular phone mentioned at col. 29, line 19 is referring to an in-vehicle phone system 359. See Johnson et al., col. 29, lines 41-43. While the vehicle can use directional speakers as noted at col. 29, lines 33-35 of Johnson et al., the directional speakers are again part of the vehicle and have nothing to do with a personal wireless communication device.

On page 15 of the final Office Action, the Examiner suggests that "the directional speakers of Johnson et al. are part of the cellular phone system as well as the directional microphone even though they are not explicitly disclosed as a physically integral part of a cellular phone handset." As support the Examiner relies on col. 29, lines 33-35 of Johnson et al. Applicants respectfully disagree and submit that there is no support in the art of record for the Examiner's statement regarding Johnson et al.

Johnson et al. describes "in-vehicle" techniques that uses ultrasonic waves to determine whether a passenger is seated in a passenger compartment of the vehicle. At, col. 29, lines 19-43 and Fig. 10 of Johnson et al. a driver of the vehicle can use a cellular phone system 359 provided in the vehicle. Ultrasonic transducers 231, 232 and 233 can be used to locate the driver's head. After the user's head has been located, a directional microphone 355 can be directed at the driver's head. The phone system 359 and the speaker 357 are fixtures of the vehicle. Additionally, Johnson et al. speculates that "[t]he use of directional speakers or even a hypersonic sound system in a similar manner also improves the telephone system performance."

Initially, as noted above, the cellular phone comments in Johnson et al. pertain to a cellular phone system 359 that is "in-vehicle". The speaker 357 is also "in-vehicle". The vehicle in Johnson et al. is not a personal wireless communication device, such as a hand-held communication device (e.g., mobile phone). Moreover, nothing in Johnson et al. teaches or suggests that its methods and systems are suitable for use in a personal wireless communication device. A personal wireless communication device has no compartment area and no need to locate a passenger's head position. A user of such personal wireless communication device, like a mobile phone, typically just holds the mobile phone to talk into its microphone.

Consequently, it is submitted that Johnson et al. fails to teach or suggest claim 1. Therefore the rejection under 35. U.S.C. §102 should be withdrawn.

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Claim 2, see Response B previously filed on June 5, 2008, which is hereby incorporated by reference. AUG 01 2008

Claim 3 depends from claim 2 and further recites that the personal wireless communication device includes "a controller that controls which speaker or speakers to be used for the sound output." The Examiner relies on Meyer et al. for teaching of a switching mechanism, which performs a switching action based on whether an optional handset is attached to its holder. The switching in Meyer et al. is between a default hands-free mode and a secondary handset mode of operation. However, nothing in Johnson et al. or Meyer et al. teaches or suggests switching between a directional speaker and a non-directional speaker.

Claim 4 depends from claim 3 and further recites that the personal wireless communication device includes "at least one sensor, and wherein said controller automatically controls which speaker or speakers to be used for sound output based on information provided by at least said sensor." The switching action in Meyer et al. is not for controlling which speaker to use. Instead, the switching action relies on a handset sensing device 317 and a hang-up cup sensing device 319, and these sensors provide an indication as to whether an optional handset 127 is attached to a hang-up cup 129. See, Meyer et al., col. 8, lines 9-43. Furthermore, the sensing devices 317 and 319 are not part of a cellular speakerphone 100 in Meyer et al. but are instead part of an optional handset 127 and an associated hang-up cup 129. See, Meyer et al., Figs. 1 and 3. Hence, it is submitted that claim 4 is further distinguished from Johnson et al. and Meyer et al. in view of the recited sensor and its usage.

Claim 5 depends from claim 1 and further recites that "said personal wireless communication device is a hand-held communication device." Here, the Examiner asserts that "[i]t would have been obvious for one of ordinary skill in the art to implement [the] device of Johnson et al. with a handset." Applicants respectfully disagree. The methods disclosed in Johnson et al. are for use in a vehicle, and the in-vehicle phone system 359 is fixed to the vehicle. Nothing suggests how these methods could in any way be used in, for example, a cellular speakerphone 100 of Meyer et al. Moreover, the techniques and systems of Johnson et al. would not be functional or useful for a hand-held communication device.

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**REJECTION OF CLAIMS 13-15 UNDER 35 USC 103(a)**

Claim 13 pertains to a peripheral apparatus for an electronic device, where the electronic device is a personal wireless communication device. Further, the peripheral apparatus for the personal wireless communication device includes a directional speaker that provides ultrasonic sound output.

Juntunen et al. describes a hands-free adapter for interfacing a mobile phone handset with an existing audio system. With respect to Juntunen et al., for discussion purposes, suppose that the mobile phone handset 1 and the adapter 2 illustrated in Fig. 1 of Juntunen et al. respectively correspond to the personal wireless electronic device and the peripheral apparatus of claim 13. Then, the AM or FM radio 3 Juntunen et al. (e.g., home stereo system, portable stereo system or vehicle radio) cannot correspond to the peripheral apparatus as recited in claim 13. The radio 3 is a separate system that can be used with the mobile phone handset 1 only via the adapter 2. The radio 3 cannot operate with the mobile phone handset 1 without the adapter 2.

For example, the noun "peripheral" means:

An auxiliary device, such as a printer, modem, or storage system, that works in conjunction with a computer.<sup>1</sup>

Since the radio 3 (i) operates as a separate system that does not need the mobile phone handset 1 to function normally, (ii) operates in a different manner when used with the mobile phone handset 1 and the adapter 2, and (iii) incapable of operating with the mobile phone handset 1 without the adapter 2, it is inappropriate to consider the radio 3 to be a peripheral apparatus of the mobile phone handset 3. If anything, it is the adapter 2 in Juntunen et al. that is a peripheral to the mobile phone handset 1. Neither the radio 3 nor the adapter 2 have a directional speaker with ultrasonic output. Hence, Juntunen et al. does not teach or suggest a peripheral apparatus having a directional speaker that provides ultrasonic sound output.<sup>2</sup>

<sup>1</sup> *The American Heritage® Dictionary of the English Language, Fourth Edition.*

<sup>2</sup> The Examiner also references an output plug 34 and a jack 35 of Juntunen et al. at Fig. 5 and col. 6, lines 59-64. However, as shown in Fig. 5 of Juntunen et al., the adapter 2 can provide an audio-out jack 35 for receiving a standard audio plug 34. Here, Juntunen et al. states "the adapter 2 may then be used with a number of cable devices to interface the audio signal from the mobile handset 1 to electronic equipment 36, such as a cassette player or CD player, that makes use of an audio system." However, the audio-out jack 35 is not a directional speaker; therefore, as previously noted, Juntunen et al. does not teach or suggest a peripheral apparatus having a directional speaker that provides ultrasonic sound output.

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In view of the admitted deficiencies of Juntunen et al., the Examiner further relied on Takahashi et al. Takahashi et al. describes an audio output apparatus for use in providing a television conference. None of the television 102, the set top box 106 or the speakers 102, 103 in Takahashi et al. are (or part of) personal wireless communication devices or peripheral devices therefore. Hence, it is submitted that Juntunen et al. in view of Takahashi et al. fails to teach or suggest the peripheral apparatus of claim 13.


**REJECTION OF CLAIMS 16-21 UNDER 35 USC 103(a)**

Claims 16-21 were distinguished in the remarks provided in the Response B previously filed on June 5, 2008, which is hereby incorporated by reference.

**REJECTION OF CLAIMS 22-25 UNDER 35 USC 102(b)**

Claim 22 pertains to a method for automatically selecting one of a plurality of potential speakers associated with an audio output device, where some of the speakers are directional while other of the speakers are non-directional. The Examiner agrees that Breed et al. fails to teach the use of directional and non-directional speaker or a method to control which speakers are in use. In view of the deficiencies of Breed et al., the Examiner again made reference to col. 29, lines 19-35 of Johnson et al. However, there is nothing in column 29, lines 19-35 of Johnson et al. that teaches or suggests anything to overcome the deficiencies of Breed et al. In Johnson et al. there is no discussion of where, how or why to provide both direction and non-directional speakers in or out of a vehicle. There is a merely casual reference to possible use of directional speakers at col. 29, lines 33-35 and a reference to a speaker 357 at col. 29, lines 41-42. Even, for the sake of discussion, assuming that directional and non-directional speakers were to be used together, there is no teaching or suggestion for any means for (or need to) "determining .... whether the appropriate one or more of the potential speakers are to be directional, non-directional or both based on the piece of information" as recited in claim 22. Therefore, it is submitted that Breed et al. in view of Johnson et al. fails to teach or suggest the method recited in claim 22.

Respectfully submitted,



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